REMARKS/ARGUMENTS

1.)   Claim Amendments

The Applicants have amended claims 2-19, 21-37, 40, 42, 45, and 46; claims 1, 20, 38, and 39 were previously canceled, and claims 41, 43, and 44 have been canceled herein; and claim 47 has been added. Accordingly, claims 2-19, 21-37, 40, 42, and 45-47 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.)   Claim Rejections – 35 U.S.C. § 102(e)

In paragraphs 2-3 of the Office Action, the Examiner rejected claims 3-10, 13-14, 16-19, 22-29, 32-33, 35-37 and 40-46 under 35 U.S.C. § 102(e) as being anticipated by Balachandran, et al. (US 6,625,133). Claims 41, 43, and 44 have been canceled. The Applicants have amended the remaining claims to better distinguish the claimed invention from Balachandran. The Examiner's consideration of the amended claims is respectfully requested.

The Applicants' claimed invention is for a *flexible* link-layer protocol utilized to determine when Packet Data Units (PDUs) need to be retransmitted. The invention is implemented at the link layer between a transmitting peer entity and a receiving peer entity, and governs whether polling requests and status reports are to be sent, and if so, how or how often each is to be sent.

In prior art protocols such as IS-95 and in Balachandran, the transmitting peer entity sends a polling request with each PDU, and the receiving peer entity sends a status report after receiving each PDU. Note that in Balachandran, a BEGIN PDU is utilized to turn on or turn off polling and status reports. This action dictates whether polling and status reports are turned on or turned off for subsequent PDUs. (Col. 5, lines 47-59; col. 12, line 57 through col. 13, line 7). When polling is turned on, polling requests and status reports are sent for each PDU. Thus, Balachandran does not teach or suggest any degree of flexibility as to how or how often polling requests and status reports are to be sent.

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The Applicants also note that the "modes of operation" in Balachandran are physical-layer modes relating to coding and modulation, not link-layer modes relating to error recovery. Balachandran states that the four possible modes of operation are fixed coding and fixed modulation, fixed coding and adaptive modulation, incremental redundancy and fixed modulation, and incremental redundancy and adaptive modulation. (Col. 12, lines 53-56). The Applicants' claimed invention relates to link-layer transmission modes, particularly the Acknowledged mode, which are not related to Balanchandran.

Amended claim 40 recites a method in a communication system of implementing a flexible link-layer protocol that enables transmission of data between a link-layer transmitting peer entity and a link-layer receiving peer entity, in which the transmitting peer entity transmits a plurality of packet data units (PDUs) to the receiving peer entity. The method includes determining by the transmitting peer entity, a first configurable set of rules governing whether the transmitting peer entity should send polling requests to the receiving peer entity, and if so, how and/or how often the polling requests should be sent. Upon determining that the transmitting peer entity should send polling requests to the receiving peer entity, the transmitting peer entity sends polling requests to the receiving peer entity in accordance with the first configurable set of rules.

The method also includes determining by the receiving peer entity, a second configurable set of rules governing whether the receiving peer entity should send status reports to the transmitting peer entity in response to receiving one or more polling requests, and if so, how and/or how often the status reports should be sent. Upon determining that the receiving peer entity should send status reports to the transmitting peer entity, the receiving peer entity sends status reports to the transmitting peer entity in accordance with the second configurable set of rules. The first and second sets of rules are configurable and combinable to change whether the transmitting peer entity should send polling requests, and if so, how and/or how often the transmitting peer entity should send the polling requests, and whether the receiving peer entity should send status reports, and if so, how and/or how often the receiving peer entity should send the status reports.

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Claim 40 has been amended to recite a link-layer transmitting peer entity and a link-layer receiving peer entity rather than a radio access network and mobile station because the method is applicable to both the uplink and the downlink when utilized in a mobile radio network. Additionally, claim 40 has been amended to recite that the method is performed in a communication system rather than a mobile radio communication system because the method is applicable to any link-layer protocol, and thus can be used for fixed links as well as radio links.

The flexibility recited in claim 40, in the sending of polling requests and status reports, is not taught or suggested by Balachandran. Therefore, the allowance of amended claim 40 is respectfully requested.

Claims 3-10, 13-14, and 16-19 depend from amended claim 40 and recite further limitations in combination with the novel and unobvious elements of claim 40. These claims have been amended for consistency of terminology with claim 40. Therefore, the allowance of claims 3-10, 13-14, and 16-19 is respectfully requested.

Independent claim 42 is a system claim corresponding to method claim 40. Claim 42 has been amended in a similar manner, and its allowance is respectfully requested for the reasons discussed above for claim 40.

Claims 22-29, 32-33, and 35-37 depend from amended claim 42 and recite further limitations in combination with the novel and unobvious elements of claim 42. These claims have been amended for consistency of terminology with claim 42. Therefore, the allowance of claims 22-29, 32-33, and 35-37 is respectfully requested.

Independent claims 45 and 46 have been amended to recite a radio access network and a mobile station, respectively, that include novel means for implementing a flexible Radio Link Protocol (RLP). The recited flexibility in sending polling requests and status reports is not taught or suggested by Balachandran. Therefore, the allowance of amended claims 45 and 46 is respectfully requested.

3.)   Claim Rejections – 35 U.S.C. § 103(a)

In paragraphs 4-5 of the Office Action, the Examiner rejected claims 2, 11, 12, 15, 21, 30, 31 and 34 under 35 U.S.C. § 103(a) as being unpatentable over Balachandran in view of Safadi (US 5,847,751). Safadi discloses modes of operation at the physical layer for retransmitting PDUs utilizing different coding and modulation schemes. However, like Balachandran, Safadi does not teach or suggest the flexibility in the sending of polling requests and status reports, as recited in the Applicants' independent claims.

Claims 2, 11, 12, and 15 depend from amended claim 42 and recite further limitations in combination with the novel and unobvious elements of claim 42. These claims have been amended for consistency of terminology with claim 42. Therefore, the allowance of claims 2, 11, 12, and 15 is respectfully requested.

Claims 21, 30, 31 and 34 depend from amended claim 42 and recite further limitations in combination with the novel and unobvious elements of claim 42. These claims have been amended for consistency of terminology with claim 42. Therefore, the allowance of claims 21, 30, 31 and 34 is respectfully requested.

4.)   New Claim

New claim 47 recites a mobile station for implementing a flexible RLP. The recited flexibility in sending polling requests and status reports is not taught or suggested by Balachandran. An equal or greater number of claims has been canceled in this response, therefore, the allowance of new claim 47 is respectfully requested.

5.)   Prior Art Not Relied Upon

In paragraph 6 of the Office Action, the Examiner stated that the prior art made of record and not relied upon is considered pertinent to the Applicants' disclosure. However, the Applicants' reading of these references has not revealed any teaching or .suggestion of a flexible link-layer protocol as claimed by the Applicants.
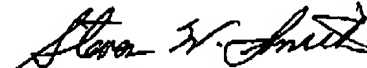
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CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 2-19, 21-37, 40, 42, and 45-47.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,

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